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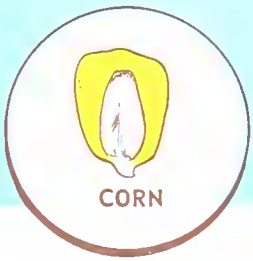
1966
BULLETIN
VOL. 49 NO.4
DECEMBER 1966

SEED ANALYSIS REPORT



GENERAL BULLETIN 713
PENNSYLVANIA DEPARTMENT OF AGRICULTURE

COMMONWEALTH OF PENNSYLVANIA
WILLIAM W. SCRANTON, GOVERNOR

DEPARTMENT OF AGRICULTURE
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Bulletin – Pennsylvania Department of Agriculture – Published in March, June, September and December by direction of the Secretary of Agriculture. Second class postage paid at Harrisburg, Pennsylvania.

Commonwealth of Pennsylvania

Department of Agriculture

Bureau of Plant Industry

Seed Analysis Report - 1966

Wendell P. Ditmer

Seed Control Officer

The Pennsylvania Seed Act was enacted to regulate the selling of agricultural, vegetable, flower, tree and shrub seed and mixtures for seeding purposes, and requires certain information to be printed on a tag or label and affixed to the container in which such seeds are sold, offered for sale or transported in the Commonwealth. Very good seed as well as very poor seed may be sold by any dealer if such seed is correctly labeled. The seed tag is the consumer's key to seed quality. The actual protection that he gets under the seed law is closely related to the attention which he gives to the analysis label.

Growers and seedsmen like to sell high quality seed. Yet good seed is often the most difficult to sell. This is true because the consumer believes that good seed costs more. It is true that the grower and seedsmen can make more money by selling "bargain seed", but the consumer suffers by buying the so called "bargain seed". The following example will show that this statement is true:

Lot A		Lot B
$9.00 per 100 pounds	Cost	$7.00 per 100 pounds
90%	Germination	60%
99.50%	Purity	93%
90 X 99.50	Germination X Purity	60 X 93
89.55%	Pure Live Seed	55.8
$9.00 ÷ 89.55	Price Divided by PLS	$7.00 ÷ 55.8
$10.05	*Actual cost per 100 lbs. of Pure Live Seed*	$12.54

Thus it appears that the bargain price is not a bargain, but is actually the most expensive seed. Good seed doesn't cost – it pays!

Pure Live Seed is a valuable tool but not an infallible guide. In some crops purity may be more important than germination; the presence of certain kinds of restricted noxious weed seeds may be so potentially harmful that high germination is not important. Combine pure live seed, rate of occurrence of restricted noxious weed seeds, a knowledge of the following terms, the advice of your seedsmen and you'll get your money's worth in seed.

Labeling Terms

Pure Seed – The percentage in weight of the kind and variety labeled. For example in Lot A above, if the quantity of seed weighed 100 pounds; 99.50 pounds of the weight would be pure seed.

Other Crop Seeds – This designates the percentage of other agricultural seeds present in the lot.

Inert Matter – This refers to anything that wont grow – chaff, stems, broken seeds (less than half), etc.

Weed Seeds – This is the percentage of seeds classified by law or general usage as weeds.

Noxious Weeds – Weeds are not just weeds – some are worse pests than others. These are designated in the Rules and Regulations under the Pennsylvania Seed Act. The names and rate of occurrence per pound must be listed.

Germination – This is the percentage of the pure seed that will produce normal plants under laboratory conditions. Under field conditions this percentage could be slightly lower.

Hard Seed – This is the percentage of seed found in legumes that remain hard at test time. They will germinate later.

Test Date – This is the date the germination test was made.

Origin – This is the name of the country or state where the seed was grown.

Treated Seed – Seed that is treated with a poisonous or non-poisonous material must be marked with certain information.

Responsibility – This is the name and address of the person or company responsible for the labeling.

SEED ACT ACTIVITIES

Each year in the enforcement of the Seed Act, inspectors visit seed vendors throughout the State. Seed that is offered for sale is examined for proper labeling requirements and samples are drawn for examination and testing in the Seed Laboratory. This report is a summary of the activities of the Seed Control Program from July 1, 1965 to June 30, 1966.

During this inspection period, lots of seed that are incorrectly labeled are placed under a "Stop Sale" order until correctly labeled or destroyed. Lots of seed that are tested in the seed laboratory and found to be mislabeled are also placed under "Stop Sale". During the inspection period covered by this report a total of 401 lots of seed at 81 seed vendors were placed under "Stop Sale" for various reasons.

During the period covered by this report inspectors collected the following number of samples:

1088 samples of agricultural seed, of which 11.6% were illegal for sale;

224 samples of mixtures of agricultural seeds, of which 51.1% were illegal for sale;

931 samples of vegetable seeds, of which 2.9% were illegal for sale;

15 samples of tree and shrub seeds, of which 6.6% were illegal for sale;

253 samples of flower seeds – checked but not reported as legality for sale.

A comparison of seed violations for the past three years is as follows:

	1965-66	1964-65	1963-64
Agricultural Seed	11.6%	9.0%	8.7%
Agricultural Seed (Mixtures)	51.1%	50.0%	50.9%
Tree and Shrub Seeds	6.6%	3.4%	33.3%
Vegetable Seeds	2.9%	4.5%	5.1%

Tables I, II, III mention technical violations and Table IV has them listed by companies. The following are considered technical violations in this report: not using complete kind names; improper terms for variety names; use of improper labeling terms; use of abbreviations of kind and variety names; illegal treatment tags; illegible tags; analysis not totaling 100%; improper format for labeling mixtures; and lack of required information (such as; lot number, origin – when required, terms "mixed" or "mixture" for mixtures and name and address). A lot of seed sampled at the wholesale level and in violation of the law was classified as a technical violation, if properly relabeled.

Summary of Seed Laboratory Work

Classification of the samples for which tests were completed and the total number of laboratory tests involved are listed in the following summary:

Number of Samples	Kind	NUMBER OF TESTS Purity	Noxious Weed Examinations	Germination
2901	Agricultural Seeds	847	1778	2871
1055	Vegetable Seeds	8	3	1279
247	Mixtures (906 Components)	238	233	729
62	Tree and Shrub Seeds	0	0	64
255	Flower Seeds	0	0	268
2	Flower Mixtures (35 Components)	2	0	33
6	Agricultural Seeds(labeling only)	0	0	0
4528	Totals	1095	2014	5244

Kind of Tests	Number
Bushel Weights (barley, oats, wheat)	411
Moisture tests (corn)	36
Fluorescence test on ryegrass	246
Cold tests (corn)	3
Sand tests (corn, beans, peas)	22
Embryo excision tests (trees)	11
Bio-Assay for treatment	539

The facilities of the Seed Laboratory are available to Pennsylvania farmers, home owners, seedmen and other State Departments who submitted 2014 samples for testing.

General Information for Seed Vendors

What can the seed vendor do to see that his seed is legal for sale? There are several things you can do. If you have any carry-over seed, see that it is retested and properly relabeled. When you buy new seed, check the label to see if it is correctly labeled; if you are in doubt, contact the Seed Control Official. If seed is placed under a Stop Sale order do not remove the seed from your premise or sell it until it is properly released. If you sell vegetable seed in bulk, see that every jar, bin or container is properly labeled. Do not over stock, it is better to run out of seed or to order more seed, than to have a lot of seed left at the end of a selling season. Get acquainted with your seed inspector, he is there to help you and to serve the buying public.

If you are not positive that your labeling meets the requirements of the Seed Act or you would like a copy of the Pennsylvania Seed Act and the Rules and Regulations under the Act, write to the Seed Laboratory, Bureau of Plant Industry, Department of Agriculture, 2301 N. Cameron Street, Harrisburg, Pennsylvania 17120.

TABLE I

Agricultural Seed Violations

The Seed Laboratory analyzed one thousand and eighty-eight samples of agricultural seeds (not including mixtures). This table lists the nature of the serious violations. Seventy-seven lots of seed were found to be in technical violation of the law, or in violation at the wholesale level (these have been relabeled or destroyed). These violations are not listed in this table but are recorded in Table IV.

The listing of both wholesaler and retailer does not imply a judgment of guilt against one or the other. The vendor of the seed, usually the retailer, is legally responsible for its condition, but the retailer cannot be justly blamed in all cases of mislabeling. Wholesalers name is in boldface type. Laboratory number is in parenthesis after the remarks and source of seed.

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Timothy S5035	Contains prohibited noxious weed seeds. **Agway, Inc.**; Agway, Inc. Chapmans, Pa. (A660307)
Ryegrass Annual P3937	Labeled 99.02% pure, found 94.22%. Labeled .70% crop seed, found 5.50%. **Agway, Inc.**; Agway, Inc., Athens, Pa. (A662066)
Orchard Grass Pennlate P-4028	Labeled 96.39% pure, found 92.07%. Labeled .64% crop seed, found 1.80%. Labeled 1.97% inert matter, found 6.13%. **Agway, Inc.**; Agway, Inc. York, Pa. (A662165)
Brome Smooth S1438	Contains prohibited noxious weed seeds. **Agway, Inc.**; Agway, Inc., Butler, Pa. (A662373)
Orchard Grass Pennlate P4028	Labeled 96.39% pure, found 90.07%. Labeled 2.97% inert matter, found 9.34%. **Agway, Inc.**; Agway, Inc., Coudersport, Pa. (A662447)
Red Clover Medium M5076	Contains restricted noxious weed seeds, none labeled. **Allied Seed Co.**; Beaver County Co-op., Beaver, Pa. (A661869)
Oats Norline W065-3	Excessive weed seed for certified (Pa. Certified). **Beachley-Hardy Seed Co.**; Dillsburg Feed & Grain, Dillsburg, Pa. (A660245) Abbottstown Grain & Feed Co., Abbottstown, Pa. (A660279)
Timothy C152	Labeled 99.60% pure, found 98.00%. Labeled .10% weed seeds, found 1.96%. **Beachley-Hardy Seed Co.**; George M. Detrick, Williamson, Pa. (A660259)
Wheat Redcoat CRDW465	Contains restricted noxious weed seeds in certified seed (Ohio Certified). **Beachley-Hardy Seed Co.**; Beachley-Hardy Seed Co., East Butler, Pa. (A660341)

TABLE I

Agricultural Seed Violations

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Barley Pennrad WB65–3–T	Labeled .01% crop seed, found 1.97%. Dated before test completed. **Beachley-Hardy Seed Co.**; Beachley-Hardy Seed Co., East Butler, Pa. (A660342)
Red Clover Medium 6268	Contains restricted noxious weed seeds, none labeled. **Beachley-Hardy Seed Co.**; Stirling Garden Shop, Butler, Pa. (A661874)
Timothy TMB–718	Labeled 85% germination, found 70%. **Beachley-Hardy Seed Co.**; Burrys Warehouse, Lewisburg, Pa. (A662402)
Orchard Grass 190–188	Labeled 93.00% pure, found 88.82%. Labeled 6.30% inert matter, found 10.29%. **Beachley-Hardy Seed Co.**; Arnell Farms Mill, Shoemakersville, Pa. (A662417)
Bluegrass Delta Kentucky 58–34	Labeled Delta variety, found to be Newport variety. **E. F. Burlingham & Sons**; Stanford Seed Co. of Philadelphia, Plymouth Meeting, Pa. (A660809) (A661302)
Bluegrass Delta Kentucky 58–35	Labeled Delta variety, found to be Park variety. **E. F. Burlingham & Son**; Stanford Seed Co. of Philadelphia, Plymouth Meeting, Pa. (A661303)
Bluegrass Imported Kentucky 1–4660	Labeled .25% weed seeds, found 1.10%. "Imported" is not a variety name. **Carlton Seed Co.**; Seems Seed Farms, Inc., Emmaus, Pa. (A661432)
Oats Russell S–29	Poor, uneven seed treatment. (Illinois Certified). **Carlton Seed Co.**; Cocolamus Mills, Cocolamus, Pa. (A662453)
Red Clover Medium 24–23	Contains restricted noxious weed seeds, none labeled. **Craver-Dickinson Seed Co.**; Wells Mill Co., Inc., Wyalusing, Pa. (A662063)
Clover Fancy 1010	"Fancy" is not a variety name. Name and address is required information. **Crawford Garden Supplies**; Kings, Allentown, Pa. (A661654)
Oats Clintland 60 G529	Poor, uneven seed treatment. (Illinois Certified). **Funk Bros.** A. H. Hoffman, Inc., Landisville, Pa. (A661403)
Ryegrass, Italian L89–5–61	Labeled .39% crop seed, found 4.91%. **Great Western Seed Co.**; Keasorge Hardware, Erie, Pa. (A662125)
Red Clover Medium 1272	Contains restricted noxious weed seeds, none labeled. **Henry Hirsch & Sons, Inc.**; Pritts Feed Mill, Inc., Mt. Pleasant, Pa. (A661878)

TABLE I

Agricultural Seed Violations

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Wheat Seneca 9955	Poor, uneven seed treatment. **Hoffman Seed & Grain Co.**; Russ H. Rohrer & Sons, Quarryville, Pa. (A660371)
Bluegrass Kentucky KB66–18	Labeled 84.69% pure, found 80.64%. Labeled 14.88% inert matter, found 19.29%. **Kahn Bros. Co.**; Spiegel, Inc., Philadelphia, Pa. (A661941)
Bluegrass Kentucky LKB–3–66	Labeled 6.00% inert matter, found 8.47%. **Loft Pedigreed Seed Co.**; American Hardware, East Butler, Pa. (A661939)
White Clover WDGL–1–66	Weed seeds exceed that allowed by law. **Loft Pedigreed Seed Co.**; American Hardware, East Butler, Pa. (A661940)
Bluegrass Kentucky RDKB–1–66	Labeled 98.00% pure, found 95.25%. Labeled 1.30% inert matter, found 4.69%. Misleading brand name. **Loft Pedigreed Seed Co.**; Acme Markets, Harrisburg, Pa. (A662290)
Oats Russell 789	Poor, uneven seed treatment. (Ohio Certified) **Northampton County Seed Co.**; Mundis Mills, York, Pa. (A662168)
Brome Smooth GB–3854	Labeled 90.10% pure, found 85.10%. Labeled 8.82% inert matter, found 14.31%. Labeled 85% germination, found 68%. **Northrup King & Co.**; Philadelphia Seed Co., Philadelphia, Pa. (A662076)
Brome Smooth BR–4783	Labeled 80% germination, found 69%. **Ohio Seed Co.**; E. L. M. Feed Store, Greencastle, Pa. (A660253)
Sorghum-Sudangrass Hybrid, SU 1 SU–5341	Labeled 85% germination, found 67%. **Ohio Seed Co.**; Seems Seed Farms, Inc., Emmaus, Pa. (A661447)
Orchard Grass Hulled X–4752–42	Contains excessive restricted noxious weed seeds, none claimed. "Hulled" is not a variety name. **Ohio Seed Co.**; E. L. M. Feed Store, Greencastle, Pa. (A662351)
Ryegrass Italian RG5529	Labeled 98.46% pure, found 95.32%. Labeled .15% crop seed, found 3.93%. **Ohio Seed Co.**; Cross Roads Garden Center, Cannonsburg, Pa. (A662394)
Ryegrass Annual K841	Labeled 98.74% pure, found 87.75% annual and 12.00% perennial. **Rudy Patrick Seed Co.**; Philadelphia Seed Co., Philadelphia, Pa. (A661487) (A662452)
Alfalfa Williamsburg 5301	Labeled 85% – 5% germination and hard seed, found 71% – 4%. **Wm. G. Scarlett & Co.**; Stewartstown Milling Co., Stewartstown, Pa. (A660240)

TABLE I

Agricultural Seed Violations

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Alfalfa Williamsburg 5304	Labeled 90% – 0% germination and hard seed, found 72% – 2%. **Wm. G. Scarlett Co.**; Red Lion Supply Co., Red Lion, Pa. (A660241)
Timothy 15250	Restricted noxious weed seeds exceed that stated. **Wm. G. Scarlett & Co.**; R. C. Schuchart, New Freedom, Pa. (A662245)
Bluegrass Kentucky 6754	Labeled 90.00% pure, found 83.98%. Labeled 9.80% inert matter, found 15.96%. **Wm. G. Scarlett & Co.**; R. C. Schuchart, New Freedom, Pa. (A662246)
Bluegrass Kentucky 142	Labeled .25% crop seed, found 1.36%. **Scott Farm Seed Co.**; Carlton Seed Co., Hanover, Pa. (A661554)
Sweet Clover White Blossom 2894	Labeled 99.90% pure, found 94.02% white and 5.70% yellow. **Stanford Seed Co.**; Van Camp & Overrein Seed Co., Sylvania, Pa. (A662055)
Timothy 1–1316	Contains restricted noxious weed seeds, none labeled. **Stanford Seed Co.**; Tanner Bros., Smethport, Pa. (A662443)
Orchard Grass 193–9 (G–683)	Labeled 93.00% pure, found 89.02%. Labeled 3.80% inert matter, found 9.77%. **Stanford Seed Co. of Philadelphia**; A. H. Hoffman, Inc., Landisville, Pa. (A661405)
Oats Garry CG6545	Contains prohibited noxious weed seeds. **Stanford Seed Co. of Philadelphia**; Cocolamus Mills, Cocolamus, Pa. (A662184)
Ryegrass Italian L–76–5C	Labeled 90.00% pure, found 92.31% Italian and 7.06% perennial. Misleading statement "for Sun and Shade". **Uncle Georges Seed Farms, Inc.**; Swid Bros., Shippensburg, Pa. (A662359)
Ryegrass Italian L–76–5C	Labeled 90.00% pure, found 88.36% Italian and 11.20% perennial. Misleading statements "For Sun and Shade" and "Common Rye". **Uncle Georges Seed Farms, Inc.**; Tri-State Discount, Altoona, Pa. (A662421)
Oats Clintland 60 T21	Poor, uneven seed treatment. **Wilkens Seed Grains, Inc.** Carlton Seed Co., Hanover, Pa. (A661562)
Barley Erie 400	Labeled .29% inert matter, found 1.59%. Treated but not labeled. E. L. M. Feed Store, Greencastle, Pa. (A662345)

TABLE II

Seed Mixture Violations

Two hundred and twenty-four official samples of mixtures of agricultural seeds were analyzed or checked for labeling and contents in the Seed Laboratory. This table lists the nature of the serious violations. Twenty-six mixtures were found to be in technical violation of the law, or in violation at the wholesale level (these have been relabeled or destroyed). These violations are not listed in this table but are recorded in Table IV.

The listing of both wholesaler and retailer does not imply a judgment of guilt against one ot the other. The vendor of the seed, usually the retailer, is legally responsible for its condition, but the retailer cannot be blamed in all cases of mislabeling. Wholesaler's name is in boldface type. Laboratory number is in parenthesis aftet the remarks and source of seed.

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
All Round Use Grass Mixture 863	Labeled 10.10% inert matter, found 13.27%. Labeled 51.00% pure Kentucky bluegrass, found 44.85%. **Aimcee Wholesale Corp.**; Strawbridge & Clothier, Plymouth Meeting, Pa. (A660192)
Show Place Beauty Lawn Mixture 663	Labeled 46.00% pure Merion Kentucky bluegrass, found 38.80%. Labeled 17.00% pure Kentucky bluegrass found 30.46%. **Aimcee Wholesale Corp.**; Strawbridge & Clothier, Plymouth Meeting, Pa. (A660193)
Four Fescue Mixed Grass Seed FBB–4–65	Labeled 85% and 80% germination for red fescue, found 64%. Improper format. Name and address is required information. **Atlantic Seed Co.**; Bargintown U.S.A., Manheim, Pa. (A660004)
Mixed Grass Seed ABFB–1–65	Labeled 68.90% pure bluegrass varieties, found 49.90%. Labeled 9.00% pure *Poa trivialis*, found 25.21%. *Poa nemoralis* found, none labeled. **Atlantic Seed Co.**; Nichols Discount City, Lancaster, Pa. (A660005)
Queen Turf Elegant Brand Lawn Seed QTE–1–65	Labeled .35% crop seed, found 1.39%. Labeled 75% germination for red fescue, found 58%. **Atlantic Seed Co.**; Two Guys from Harrison, Allentown, Pa (A660027)
Queen Turf Quality QTQM–1–66	Labeled 80% germination for red fescue, found 65%. Word "Mixed" or "Mixture" is required information. **Atlantic Seed Co.**; Two Guys from Harrison, Shillington, Pa. (A660097)
Atlantic Multi-purpose Brand Mixed Grass Seed AMD–1–66	Labeled 22.50% pure Park Kentucky bluegrass, found 17.22%. **Atlantic Seed Co.**; Shop Rite of Reading, Reading, Pa. (A660098)
Ascot Park Mixture GW–PS–8–65	Labeled 9.00% pure Alta tall fescue, found 5.53%. Perennial ryegrass found, none labeled. Format wording not correct. **Atlantic Seed Co.**; Bazaar Variety Shop, Horsham, Pa. (A660104)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Green Meadow (Brand) Mixed Grass Seed GM–1–66	Labeled 8.50% pure Kentucky bluegrass, found 6.19%. Labeled 49.50% pure Italian ryegrass, found 43.31%. Labeled 22.54% pure perennial ryegrass, found 18.73%. Labeled 16.35% pure Kentucky 31 tall fescue, found 29.60%. **Atlantic Seed Co.**; Almart, Allentown, Pa. (A660120)
Targil Green Mixed Grass Seed TGP–1–66	Labeled .75% crop seed, found 4.58%. **Atlantic Seed Co.**; Folks Food Basket, Easton, Pa. (A660156)
Wiltshire Green (Brand) Mixed Grass Seed GW–PS–8–65	Labeled 9.00% pure Alta Tall fescue, found 5.75%. Labeled .60% crop seed, found 3.06%. Marked treated, none present. **Atlantic Seed Co.**; Town & Country, Altoona, Pa. (A662501)
Tuxedo Park Brand Mixed Grass Seed GW–TP–1–66	Labeled .60% crop seed, found 3.65%. Format wording not correct. **Atlantic Seed Co.**; Glosser Bros. Dept. Store, Johnstown, Pa. (A662502)
ABC 39 Special Mixture BC39D	Labeled .26% crop seed, found 1.71%. Labeled 23.75% pure perennial ryegrass, found 2.78%. Red fescue found, none labeled. **Beachley-Hardy Seed Co.**; Central Chemical Co., Butler, Pa. (A660153)
Velvet Grass Lawn Seed Mixture PB–749	Labeled 46.54% pure Kentucky bluegrass, found 33.52%. Labeled 8.97% pure Newport Kentucky bluegrass, found 25.97%. **Comark, Inc.**; Agway Inc., Butler, Pa. (A660191)
White & Small Hop Clover Mixture H–1	Hop clover is a weed in Pennsylvania. Labeled .50% weed seed, found 52.42%. **Cover Lawn Seed Co.**; Millersburg Hardware, Millersburg, Pa. (A660009)
Golden Triangle Grass Seed Mixture YET5	Labeled 81.44% pure Italian ryegrass, found 76.67%. Perennial ryegrass found, none labeled. **Cover Lawn Seed Co.**; M. J. Roeder, York, Pa. (A660176)
Timothy, Clover and Alsike Mixture 66 x 31	Labeled 57.91% pure timothy, found 51.59%. Labeled 26.33% pure red clover, found 36.52%. Labeled 12.87% pure alsike clover, found 9.21%. Contains restricted noxious weed seeds, none labeled. Abbreviations not permissible. **Craver-Dickinson Seed Co.**; Learns Feed Service, Nelson, Pa. (A662509)
Druid Hill Park #51 Grass Seed Mixture K51	Percentages of red fescue, Kentucky 31 tall fescue, perennial ryegrass and meadow fescue less than stated. Percentage of *Poa* spp. exceeds that stated. **Druid Hill Park Seed Co.**; Carlisle Food Store, Inc., Carlisle, Pa. (A660006)
Druid Hill Park Shade Grass Seed Mixture HSH	Labeled 40.24% total tall fescue, found 32.25%. Perennial ryegrass found, none labeled. **Druid Hill Park Seed Co.**; M. J. Roeder, York, Pa. (A660174)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Druid Hill Park #51 Grass Seed Mixture H51	Labeled 5.00% Campus Kentucky bluegrass, found 2.62%. Annual ryegrass found, none labeled. **Druid Hill Park Seed Co.**; Acme Markets, Middletown, Pa. (A660178)
Spring Green Mixed Grass Seed SPG–5–65	Labeled 80% germination for Merion Kentucky bluegrass, found 58%. Labeled as treated, none present. **Eastern Seed Co.**; F. W. Steinman, Inc., Lancaster, Pa. (A660022)
Mixed Grass Seed PX–3–65	Labeled 93.49% annual ryegrass, found 86.61%. Labeled .12% crop seed, found 5.13%. "All Purpose" false and misleading statement. **Flower Lane Farms**; Two Guys from Harrison, Shillington, Pa. (A660100)
Glenside Park (Brand) Mixed Grass Seed GPA–1–66	Non-uniform lot of seed. **Flower Lane Farms**; Acme Markets, Harrisburg, Pa.; Acme Markets, Shamokin Dam, Pa.; Acme Markets, Reading, Pa. (A660183), (A660197), (A660198), (A660199)
Veltex Grass Seed Mixture 6695	Labeled 46.50% Italian ryegrass, found 54.57%. Labeled 26.00% perennial ryegrass, found 18.08%. Labeled 75% germination for Kentucky bluegrass, found 67%. **Fredonia Seed Co.**; Dye & Bresee Hdw., Towanda, Pa. (A660170)
Sta Green Grass Seed Mixture 4865	Labeled 85% – 90% germination for *Festuca* spp., found 64%. **Louis Hahn & Sons**, Pittsburgh, Pa. (A660133)
Independence Hall Grass Seed Mixture IH8R	Contain prohibited noxious weed seeds. **Independence Hall Seed Co.**; Food Fair, Lemoyne, Pa. (A660173)
Rainy Day Grass Seed Mixture HRD	Labeled 29.02% Italian ryegrass, found 20.98%. Labeled 7.80% perennial ryegrass, found 16.54%. **Independence Hall Seed Co.**; Acme Market, Harrisburg, Pa. (A660189)
Independence Hall Perennial Deals Grass Seed Mixture 302F	Percentages of Kentucky bluegrass and wood bluegrass less than stated. Percentages of Delta, Park and Newport Kentucky bluegrass exceeds that stated. Proper format not used. **Independence Hall Seed Co.**; R. R. Hardware, Clifton Heights, Pa. (A662514)
Servess Mixture 65–146	Labeled 86.25% Italian ryegrass, found 70.05%. Labeled 5.90% perennial ryegrass found 19.37%. Labeled .20% crop seed, found 2.33%. **Kahn Bros. Co.**; Kuzan's V & S Hdw., Shoemakersville, Pa. (A660025)
Code E. Mixture 66–5 ?	Proper format not complete. Required information (lot number, test date, crop seed, etc.) missing. Labeled 5.05% Kentucky bluegrass, found 3.83%. **Kahn Bros., Co.**; Spiegel, Inc., Philadelphia, Pa. (A660113)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Meri-Mix Lawn Mixture 66–26	Labeled .30% crop seed, found 6.39%. Complete kind name not used. **Kahn Bros. Co.**; Spiegel, Inc., Philadelphia, Pa. (A660114)
Show Lawn Mixture 65–35	Labeled 62.10% Kentucky bluegrass, found 52.00%. Labeled .20% crop seed, found 5.30%. **Kahn Bros. Co.**; Spiegel, Inc., Philadelphia, Pa. (A660116)
Grants Special (Brand) Mixed Grass Seed GSS–1–65	Labeled .50% crop seed, found 1.18%. **Loft Pedigreed Seed Co.**; W. T. Grant & Co., Lancaster, Pa. (A660020)
Mixed Grass Seed STAT–1–65	*Poa* spp. exceeds that stated. *Poa trivialis* found, none labeled. Labeled .50% crop seed, found 1.98%. Labeled 11.45% inert matter, found 15.18%. **Loft Pedigreed Seed Co.**; F. W. Steinman, Lancaster, Pa. (A660021)
Multi-Purpose Mixed Grass Seed AMP–1–66	Labeled 1.20% crop seed, found 3.11%. **Loft Pedigreed Co.**; American Hardware, East Butler, Pa. (A660125)
Deluxe Mixed Grass Seed D–1–66A	Labeled 38.00% creeping red fescue, found 32.97%. Labeled 34.00% Kentucky bluegrass, found 43.91%. Labeled 80% germination for Merion Kentucky bluegrass, found 69%. **Loft Pedigreed Seed Co.**; American Hardware, East Butler, Pa. (A660126)
Economy Mixed Grass Seed E–1–66	Labeled 39.20% perennial ryegrass, found 35.67%. Labeled 34.30% annual ryegrass, found 40.77%. Labeled 75% germination for creeping red fescue, found 59%. **Loft Pedigreed Seed Co.**; American Hardware, East Butler, Pa. (A660127)
Cambridge Park Mixed Grass Seed CP–WSM – 125	Labeled 78.40% perennial ryegrass, found 71.77%. Labeled 9.80% Kentucky 31 tall fescue, found 18.23%. False and misleading statement "All purpose – for Sun and Shade". **Loft Pedigreed Seed Co.**; Weis Market, Millersburg, Pa. (A660184)
First Aid Brand Grass Seed & Fertilizer Mixture FA–3–66	Contains restricted noxious weed seeds, none labeled. Labeled 33.28% Kentucky 31 tall fescue, found 39.61%. Labeled 17.57% timothy, found 9.40%. **Loft Pedigreed Seed Co.**; Masons, Altoona, Pa. (A662503)
Lofts Marvelgreen Mixed Grass Seed MG1–66	Percentages of perennial ryegrass and Park Kentucky bluegrass less than stated. Percentage of annual ryegrass exceeds that stated. Germination percentage of ryegrasses less than stated. Labeled 1.35% crop seed, found 8.89%. Labeled treated, none found. **Loft Pedigreed Seed Co.**; City Wide Hardware, Clifton Heights, Pa. (A662516)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
All Weather Lawn Seed Mix AAW–2166	Labeled 18.85% perennial ryegrass, found 12.06%. Labeled 16.05% Italian ryegrass, found 24.74%. **The Ohio Seed Co.**; Associated Hardware Supply Co., Braddock, Pa. (A660129)
Kentucky Parkway Lawn Seed Mixture AKP–2166	Labeled 49.50% perennial ryegrass, found 25.66%. Labeled 34.50% Italian ryegrass, found 60.35%. **The Ohio Seed Co.**; Associated Hardware, Butler, Pa. (A660131)
Fast Gro Special Mix L151263	Labeled 75.77% annual ryegrass, found 67.59%. Labeled 15.17% perennial ryegrass, found 22.49%. Complete format not used. **The Poge Seed Co.**; Farm & Home Supply, Wyalusing, Pa. (A660171)
Marvelawn Special Mixture L14–466	Perennial ryegrass found, none labeled. **The Poge Seed Co.**; Treat Hardware, Tioga, Pa. (A662508)
Meadow Green Mixed Grass Seed GA–1–66	Percentages of Italian ryegrass, Kentucky bluegrass, Kentucky 31 tall fescue exceeds that stated. Perennial ryegrass claimed, none found. False and misleading statement – "will grow in Sun and Shade". **Penn Valley Seed Service**; Thrift Drug Co., Reading, Pa. (A660200)
Dura–Turf Mixed Grass Seed MDT65.5	Labeled .88% crop seed, found 1.70%. **Lee Patton Seed Co.**; Currys Garden Center & Mill, Hershey, Pa. (A660010)
Multipurpose Mixed Grass Seed MP–1–65M	Kentucky bluegrass labeled, none found. Labeled 28.50% perennial ryegrass, found 33.74%. Labeled 14.70% annual ryegrass, found 44.00%. **Pro Hardware Inc.**; Lairds Hardware, Dover, Pa. (A660015)
Hi–Quality Lawn Seed Mixture 1–FD	Labeled 29.09% Pennlawn red fescue, found 25.92%. Labeled 9.91% annual ryegrass, found 6.15%. Labeled .55% crop seed, found 3.50%. Analysis does not total 100%. **Robert A. Reichard, Inc.**; Albrights Hardware, Allentown, Pa. (A660026)
Special Grass Seed Mixture 6710	Meadow fescue labeled, none found. Tall fescue found, none labeled. Labeled .42% crop seed, found 3.23% **Walter S. Schell, Inc.**; H. H. Miller, Harrisburg, Pa. (A660012)
*34 Triumph Brand Mixture 514–34	Labeled 50.37% Windsor Kentucky bluegrass, found 61.91%. Labeled 20.29% Merion Kentucky bluegrass, found 10.97%. **O. M. Scott & Son**; Broscious Lumber Co., Sunbury, Pa. (A660042)
*90 Grass Seed Mixture 510–90	Labeled 51.57% Kentucky bluegrass, found 57.43%. Labeled 45.45% total *Festuca* spp., found 39.52%. **O. M. Scott & Son**; Waynes Hardware, North East, Pa. (A660057)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
All Perennial Grass Seed Mixture 6627–S	Labeled 71.25% Kentucky bluegrass, found 80.56%. Labeled 24.50% total *Festuca* spp., found 18.39%. **Seaboard Seed Co.**; A & P Store, Selinsgrove, Pa. (A660195)
Oxford Park Grass Seed Mixture J0001	Labeled 90% germination for Kentucky 31 tall fescue, found 56%. **Seaboard Seed Co.**; A & P Store, Selinsgrove, Pa. (A660196)
Topco Premium Grass Seed Mixture 6631	Labeled 19.40% Delta Kentucky bluegrass, found 6.56%. Labeled 19.40% Newport Kentucky bluegrass, found 38.28%. **Seaboard Seed Co.**; Penn Fruit, Clifton Heights, Pa. (A662510)
Green Melody Grass Seed Mixture 6660	Labeled 5.10% Bermuda grass, found .21%. Kentucky bluegrass found, none labeled. **Seaboard Seed Co.**; J. M. Fields Co., York, Pa. (A662512)
Cross Country Lawn Seed Mixture 6122M	Labeled 19.25% Park Kentucky bluegrass, found 32.29%. Labeled 19.00% Delta Kentucky bluegrass, found 11.54%. **Sears Roebuck & Co.**; Sears Roebuck & Co., East Liberty, Pa. (A660152)
Quick Way Grass Seed Mixture 50–08A	Labeled 84.50% annual ryegrass, found 79.76%. Labeled 5.60% perennial ryegrass, found 12.46%. **Stanford Seed Co.**; The I. W. Scott Co., Pittsburgh, Pa. (A660144)
I. W. Scott Bluegrass Blend Mixture 5139YX	Labeled 39.20% Kentucky bluegrass, found 20.46%. Labeled 14.85% Newport bluegrass, found 38.61%. **Stanford Seed Co.**; The I. W. Scott Co., Pittsburgh, Pa. (A660146)
Quick Way Grass Seed Mixture 6–030	Labeled 84.50% annual ryegrass, found 77.80%. Labeled 5.60% perennial ryegrass, found 9.07%. False statement under Fine-textured Grasses – "None". **Stanford Seed Co. of Philadelphia**; (A660177)
Ruff'n Tuff Grass Seed Mixture RTPR504	Labeled 75% germination for Alta tall fescue, found 57%. False and misleading statement "for Sun and Shade". **Valley Feed & Supply Co., Inc.**; Charles Auto Store, Reading, Pa. (A660194)
Big "A" Grass Seed Mixture 1834	Labeled 49.00% annual ryegrass, found 95.21%. Labeled 43.15% perennial ryegrass, found 3.73%. **Vaughans Seeds**; Broscious Lumber Co., Sunbury, Pa. (A660043)
Big "A" Grass Seed Mixture 1834	Labeled 49.00% annual ryegrass, found 24.70%. Labeled 43.15% perennial ryegrass, found 71.50%. **Vaughans Seeds**; American Hardware, East Butler, Pa. (A660128)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
All Blue Lawn Seed Mixture 6025	Labeled 29.40% Newport Kentucky bluegrass, found 3.57%. Labeled 24.50% Delta Kentucky bluegrass, found 8.98%. Labeled 24.50% Kentucky bluegrass, found 55.85%. Labeled 18.40% Park Kentucky bluegrass, found 28.18%. **Western Auto Supply Co.**; Western Auto, East Butler, Pa. (A660121)
Beaver Special Mixture LG15	Labeled .00% crop seed, found 1.64%. Beaver County Co–op. Ass'n., Beaver, Pa. (A660157)
Hornco Lawn Seed ?	Proper information not given. D. E. Horn & Co., Inc., York, Pa. (A660016)
Green Lawn Mix ?	Proper information not given or format used. Labeled 19.60% annual ryegrass, found 28.15%. P. J. Oesterling & Son, Inc., Butler, Pa. (A660028)
Play Lawn Mix ?	Proper information not given or format used. Labeled .60% crop seed, found 3.62%. P. J. Oesterling & Son, Inc., Butler, Pa. (A660029)
Custom Grass Mixture SM30	Labeled 34.88% Kentucky bluegrass, found 25.07%. Labeled 29.45% total *Festuca* spp., found 51.95%. Labeled 28.20% Italian ryegrass, found 16.75%. Stauffer Farm Market, Lancaster, Pa. (A660019)
Town & Country Special Mixture T&G–T&C–65	Percentages of creeping red fescue and perennial ryegrass less than stated. Percentages of Kentucky bluegrass and Highland Colonial bentgrass exceeds that stated. Annual ryegrass found, none labeled. Throw & Grow Seed Co., Trexlertown, Pa. (A660086)
Campus Special Mixture T&G–C–65	Labeled 97.25% total *Festuca* spp., found 93.43%. Labeled .25% crop seed, found 4.87%. Throw & Grow Seed Co., Trexlertown, Pa. (A660158)
Middle Lawn Special Mixture T&G–ML–65	Labeled 29.20% total *Festuca* spp., found 35.57%. Labeled 9.20% redtop, found 4.40%. Labeled .35% crop seed, found .90%. Throw & Grow Seed Co., Trexlertown, Pa. (A660159)
Town & Country Special Mixture T&G–T&C–65	Annual ryegrass found, none labeled. Throw & Grow Seed Co., Trexlertown, Pa. (A660160)

TABLE II

Seed Mixture Violations

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Special Contractor Mixture T&G–SCM–65	Percentages of perennial and annual ryegrasses less than stated. Percentage of Kentucky bluegrass exceeds that stated. Red fescue found, none labeled. Labeled .50% crop seed, found 1.84%. Throw & Grow Seed Co., Trexlertown, Pa. (A660161)
Delux Shade Mixture T&G–DLS–65	Labeled 13.50% *Poa trivialis*, found 29.08%. Poa nemoralis labeled, none found. Labeled .40% crop seed, found 7.34%. Throw & Grow Seed Co., Trexlertown, Pa. (A660162)
White Rose Park Lawn Seed Mixture 16163	Labeled .30% crop seed, found 2.53%. White Rose Seed & Nursery Co., York, Pa. (A660107)
White Rose Special Lawn Seed Mixture 17267	Percentages of Kentucky bluegrass and annual ryegrass exceeds that stated. Percentages of redtop and white clover less than stated. Poa trivialis labeled, none found. White Rose Seed & Nursery Co., York, Pa. (A660108)

TABLE III

Flower and Vegetable Seed Violations

The Seed Laboratory has received and tested two hundred and fifty-three samples of flower seed and nine hundred and thirty-one samples of vegetable seeds. This table includes only those samples that were found to be in serious violation of the Seed Act. Twenty-two samples were found to be in technical violation of the law or in violation at the wholesale level (these have been relabeled or destroyed). These violations are not listed in this table but are recorded in Table IV.

The wholesaler's name in all instances and the germination percentage for those samples of seed found below standard or below labeled germination percentage are in boldface type. Samples, for which the found germination is not in boldface, are in violation for some other reason as indicated at the end of this table.

Lab. No.	Kind	Source of Seed Variety	Given Germ.	Given Date	Found Germ.	Standard
		W. Atlee Burpee Co.				
		Eislers Nursery, Prospect Pa.				
A662370	Lettuce	Iceburg	80	12/65	**61**	80
		Pine Run Supply Co., Horsham, Pa.				
A661632	Petunia	Bedding Mixed		1966	**7**	45
		Ferry-Morse Seed Co.				
		Weis Market, Millersburg, Pa.				
A662280	Bean	Fordhook Bush, Lima		1966	**11**	70
		The Chas. C. Hart Seed Co.				
		American Seed Co., Lancaster Pa.				
A660973	Bean	Fordhook 242, Lima	90	11/65	**46**	70
		Mulford-Hickerson Corp.				
		G. C. Murphy Co., Willow Grove, Pa.				
A661735	Zinnia	Dark Jewel #23	65	1966	**56**	65
		Northrup King & Co.				
		I. W. Scott Co., Pittsburgh, Pa.				
A661788	Bean	Fordhook 242, Lima #59/P15	85	1/66	**65**	70
		The Page Seed Co.				
		McQustin's Pharmacy, Harmony, Pa.				
A662203	Lettuce	Iceburg	85	1/66	**74**	80
A662205	Lettuce	Grand Rapids	80	1/66	**56**	80
		Independents				
		Abels Seed House, Reading, Pa.				
A662113	Onion	Yellow Globe Danvers #320–51	90	10/65	**74**	70
A662116	Radish	White Strasburg	80	12/65	**59**	80

TABLE IV

Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agricultural			Mixtures			Vegetable			Flower		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Abbott & Cobb Philadelphia, Penna.	..	..	..	1	..	..	34	..	3	..	..	..
Agricultural Development Corp. Shiremanstown, Penna.	..	..	..	1	..	..	..	..	..	..	..	..
Agway, Inc. Buffalo, New York	163	5	7	3	..	1	..	..	..	..	..	..
Aimcee Wholesale Corp. New York, New York	..	..	..	..	2	..	..	..	..	..	..	..
Alexander Seed Farms Bellefonte, Penna.	8	..	..	..	..	..	..	..	..	..	..	..
Allied Seed Co. Fort Wayne, Indiana	..	1	..	..	..	..	..	..	..	..	..	..
American Seed Co. Lancaster, Penna.	..	..	..	..	..	..	23	..	..	29	..	1
Arnold-Thomas Seed Service Fresno, California	2	..	4	..	..	..	..	..	..	..	..	..
Asgrow Seed Co. New Haven, Connecticut	..	..	..	..	..	..	70	..	..	..	..	..
Atlantic Seed Co. Martinsville, New Jersey	3	..	..	..	10	..	..	..	..	..	..	..
Bausher and Teman Allentown, Penna.	..	..	1	..	..	..	..	..	..	..	..	..
Beachley-Hardy Seed Co. Camp Hill, Penna.	132	8	5	6	1	2	..	..	..	..	..	..
Better Seed Co. Pittsburgh, Penna.	..	..	..	1	..	..	34	..	..	10	..	..
Bordners Black Swamplands Weston, Ohio	1	..	..	..	..	..	..	..	..	..	..	..
Brett-Young Seeds Limited Winnipeg, Manitoba	1	..	..	..	..	..	..	..	..	..	..	..
Buchanan-Cellers Grain Co. McMinnville, Oregon	2	..	..	..	..	..	..	..	..	..	..	..
Robert Buist Seed Co. Philadelphia, Penna.	..	..	..	..	..	..	48	..	3	..	..	..
E.F. Burlingham & Son Forest Grove, Oregon	11	3	..	..	..	..	..	..	..	..	..	..

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W. Atlee Burpee Co. Philadelphia, Penna.	5	..	..	6	..	1	158	1	4	40	1	1
Carltnn Seed Cn. Hannver, Penna.	48	2	4	..	..	..	..	..	..	..	..	..
Comark, Inc. Ithaca, New York	2	..	..	2	1	2	120	..	5	5	..	..
Cover Lawn Seed Co. Baltimnre, Maryland	..	..	..	..	2	1	..	..	..	..	..	..
Craver-Dickinson Seed Co. Buffaln, New York	14	1	1	1	1	1	..	..	..	..	..	..
Crawfnrd Garden Supplies Providence, R. I.	..	1	..	..	..	..	..	..	..	..	..	..
Crosman Seed Corp. East Rochester, New York	..	..	..	1	..	..	16	..	1	18	..	..
Alton L. Culver & Snn Trumansburg, New Ynrk	1	..	2	..	..	..	..	..	..	..	..	..
Cumberland Valley Cn-np. Ass'n. Shippensburg, Penna.	4	..	1	..	..	..	..	..	..	..	..	..
Dekalb Agricultural Ass'n., Inc. Dekalb, Illinois	1	..	..	..	..	..	..	..	..	..	..	..
Dessert Seed Cn., Inc. El Centro, California	..	..	..	..	..	..	7	..	..	..	..	..
Dewine & Hamma Yellow Springs, Ohin	6	..	1	..	..	..	..	..	..	..	..	..
Albert Dickinsnn Seed Co Princeton, Illinois	2	..	..	..	..	..	..	..	..	..	..	..
T. A. Doebler & Snn Jersey Shore, Penna.	12	..	..	..	..	..	..	..	..	..	..	..
Druid Hill Park Seed Co. Baltimore, Maryland	..	..	..	1	3	..	..	..	..	..	..	..
E. I. DuPont de Nemnurs & Co., Inc. Wilmingtnn, Delaware	..	..	..	3	..	..	..	..	..	..	..	..
Eastern Seed Co. Bnundbrook, New Jersey	..	..	..	..	1	..	..	..	..	..	..	..

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Farmers Elevator Co. Franklin, Kentucky	..	..	1	..	..	..	..	..	..	..	..	..
Ferry-Morse Seed Co. Buffalo, New York	..	..	..	..	..	..	50	1	..	2	..	..
Flower Lane Farms Martinsville, New Jersey	..	..	..	..	5	..	..	..	..	..	..	..
Forestry Associates Allentown, Penna.	14	..	..	..	..	..	..	..	..	..	..	..
Fredonia Seed Co. Fredonia, New York	..	..	..	1	1	..	24	..	..	22	..	..
Garden Galleries, Inc. Geneva, New York	..	..	..	..	..	..	..	..	..	2	..	..
Funk Bros. Bloomington, Illinois	..	1	..	..	..	..	..	..	..	..	..	..
H. G. German Seeds Smethport, Penna.	..	..	..	..	..	..	..	..	..	2	..	..
Good Luck Gardens Lancaster, Penna.	..	..	..	..	..	..	..	..	..	4	..	..
Great Western Seed Co. Albany, Oregon	..	1	1	..	..	..	..	..	..	..	..	..
Jonathan Green & Sons Kearny, New Jersey	2	..	2	3	..	..	..	..	..	..	..	..
The Chas. C. Hart Seed Co. Wethersfield, Connecticut	..	..	..	..	..	..	6	1	..	..	..	..
Herbst Brothers Seedsmen, Inc. New York, New York	..	..	..	..	..	..	6	..	..	..	..	..
Heritage House Products, Inc. Pittsburgh, Penna.	..	..	..	8	..	1	..	..	..	..	..	..
Henry Hirsch & Sons, Inc. Toledo, Ohio	9	1	..	1	..	..	..	..	..	..	..	..
A. H. Hoffman, Inc. Landisville, Penna.	11	..	..	..	..	..	..	..	..	..	..	..
Hoffman Seed & Grain Co. Muncy, Penna.	23	1	1	..	..	..	..	..	..	..	..	..
Holler & Co., Inc. Rocky Ford, Colorado	..	..	..	..	..	..	1	..	..	..	..	..

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Independents	5	1	1	5	12	3	9	2	..	..	..	..
Independence Hall Seed Co. Baltimore, Maryland	..	..	..	4	3	1	..	..	..	..	..	..
Intermountain Bean Co., Inc. Twin Falls, Idaho	..	..	..	..	..	..	19	..	..	..	..	..
Jacklin Seed Co., Inc. Dishman, Washington	1	..	..	..	..	..	..	..	..	..	..	..
Jenks White Seed Co. Salem, Oregon	4	..	..	..	..	..	..	..	..	..	..	..
Johnston Seed Co. Enid, Oklahoma	2	..	..	..	..	..	..	..	..	..	..	..
Kahn Bros. Co. Chicago, Illinois	..	1	..	2	4	..	..	..	..	..	..	..
Kellogg Seed Co. Ventura, California	..	..	..	..	..	..	8	..	..	..	..	..
Kentucky Valley Farms Boundbrook, New Jersey	1	..	..	..	..	..	..	..	..	..	..	..
S. S. Kresge Co. Detroit, Michigan	..	..	..	1	..	..	..	..	..	..	..	..
D. Landreth Seed Co. Philadelphia, Penna.	..	..	..	3	..	4	4	..	..	..	..	..
Livingston Seed Co. Columbus, Ohio	..	..	..	..	..	..	6	..	..	..	..	..
Loft Pedigreed Seed Co. Jersey City, New Jersey	3	3	1	1	8	..	..	..	..	..	..	..
Manderville-King Co. Rochester, New York	..	..	..	..	..	..	16	..	..	9	..	..
Mays Seed Co. Womelsdorf, Penna.	33	..	3	..	..	..	..	..	..	..	..	..
McCabe Seeds Ltd. Winnipeg, Manitoba	2	..	..	..	..	..	..	..	..	..	..	..
Meyer Seed Co. Baltimore, Maryland	..	..	..	..	..	..	2	..	..	..	..	..
Miller, W. J. & Son Farmdale, Ohio	2	..	..	..	..	..	..	..	..	..	..	..

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	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Mock Seed Co. Pittsburgh, Penna.	3	..	1	5	..	5	..	..	..	..	..	..
Mulford-Hickerson Corp. Apopka, Florida	..	..	..	..	..	..	3	..	..	1	1	..
Northampton County Seed Co. Bath, Penna.	3	1	1	..	..	..	..	..	..	..	..	..
Northrup King & Co. Minneapolis, Minnesota	27	1	2	..	..	..	37	1	1	38	..	1
Northwest Farmers Marketing Albany, Oregon	3	..	..	1	..	1	..	..	..	..	..	..
The Ohio Seed Co. West Jefferson, Ohio	79	4	5	1	2	..	..	..	..	..	..	..
J. C. Oliger Seed Co. Akron, Ohio	1	..	..	..	..	..	..	..	..	..	..	..
Ontario Seed Cleaners Toronto, Canada	1	..	..	..	..	..	..	..	..	..	..	..
Pacific Grains, Inc. Rickreall, Oregon	2	..	..	..	..	..	..	..	..	..	..	..
Pacific Supply Cooperative Madras, Oregon	6	..	..	..	..	..	..	..	..	..	..	..
The Page Seed Co. Greene, New York	..	..	..	..	2	..	20	2	..	..	..	..
Park Seed Farms Urbana, Ohio	2	..	..	..	..	..	..	..	..	..	..	..
Lee Patton Seed Co. Moonachie, New Jersey	..	..	..	..	1	..	..	..	..	..	..	..
Payne Bros. Seed Co. Nashville, Tennessee	1	..	..	..	..	..	..	..	..	..	..	..
Penn Valley Seed Service Philadelphia, Penna.	..	..	..	..	1	..	..	..	..	..	..	..
The Philadelphia Seed Co. Philadelphia, Penna.	48	..	3	10	..	1	..	..	..	..	..	..
J. M. Phillips Mercersburg, Penna.	..	..	..	..	..	..	19	..	..	20	..	..

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Pioneer Hi-Bred Corn Co. Tipton, Indiana	2	..	1	..	..	..	..	..	..	..	..	..
Pro Hardware Inc. Stanford, Connecticut	..	..	..	..	1	..	..	..	..	..	..	..
Robert A. Reichard, Inc. Allentown, Penna.	..	..	..	1	1	..	..	..	..	..	..	..
J. B. Rice, Jr., Inc. Shushan, New York	..	..	..	..	..	..	1	..	..	..	..	..
Roger Bros. Seed Co. Idaho Falls, Idaho	..	..	..	..	..	..	8	..	..	..	..	..
Waldo Robnert Co. Hollister, California	..	..	..	..	..	..	2	..	..	..	..	..
P. L. Rohrer & Bros. Smoketown, Penna.	8	..	2	4	..	..	53	..	1	37	..	..
Rome Feed and Supply Co. Rome, Ohio	1	..	..	..	..	..	..	..	..	..	..	..
Rudy Patrick Seed Div. Kansas City, Missouri	8	2	1	..	..	1	..	..	..	..	..	..
Sanford Seed Co. Silverton, Oregon	6	..	1	..	..	..	..	..	..	..	..	..
Wm. G. Scarlett & Co. Baltimore, Maryland	15	4	1	5	..	..	..	..	..	..	..	..
Walter S. Schell, Inc. Harrisburg, Penna.	4	..	..	2	1	..	44	..	..	9	..	..
J. Schlessman & Sons, Inc. Avery, Ohio	2	..	..	..	..	..	2	..	..	..	..	..
Scott Farm Seed Co. Mechanicsburg, Ohio	3	1	2	..	..	..	..	..	..	..	..	..
Scott Seed Co. New Albany, Indiana	7	..	5	..	..	..	..	..	..	..	..	..
The I. W. Scott Co. Pittsburgh, Penna.	..	..	..	1	..	..	7	..	..	..	..	..
O. M. Scott & Son Marysville, Ohio	3	..	..	18	2	..	..	..	..	..	..	..
Seaboard Seed Co. Bristoll, Illinois	..	..	..	1	4	..	..	..	..	..	..	..

TABLE IV

Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agriculturol			Mixtures			Vegetable			Flower		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Sears Roebuck & Co. Chicago, Illinois	3	..	1	4	1	..	22	..	..	..	..	..
Security Seed Co. San Joaquin, California	2	..	..	..	..	..	..	..	..	..	..	..
Seed Research Specialists, Inc. Modesto, California	..	..	..	..	..	..	1	..	..	..	..	..
Seed Specialists, Inc. Pittsburgh, Penna.	1	..	..	..	..	..	..	..	..	..	..	..
Seems Seed Farms, Inc. Emmaus, Penna.	11	..	..	..	..	..	..	..	..	..	..	..
K. Servos West Chester, Penna.	1	..	..	..	..	..	..	..	..	..	..	..
G. M. Sherwood Montgomery, Penna.	12	..	..	..	..	..	..	..	..	..	..	..
Stanford Seed Co. Pittsburgh, Penna.	48	2	3	2	2	1	..	..	..	..	..	..
Stanford Seed Co. of Philadelphia Plymouth Meeting, Penna.	118	2	10	..	1	..	..	..	..	..	..	..
Todd Hybred Corn Co. Burlington, Indiana	4	..	..	..	..	..	..	..	..	..	..	..
Uncle Georges Seed Farms, Inc. Monsey, New York	..	2	..	..	..	..	..	..	..	..	..	..
Valley Feed & Supply Co., Inc. Spring Valley, New York	..	..	..	2	1	..	..	..	..	..	..	..
Vaughan's Seeds Chicago, Illinois	..	..	..	1	2	..	5	..	..	..	..	..
Weaver Field Seed, Inc. Grand Rapids, Ohio	1	..	..	..	..	..	..	..	..	..	..	..
Western Auto Supply Co. Kansas City, Missouri	..	..	..	4	1	..	..	..	..	..	..	..
Western Farmers Ass'n. Seattle, Washington	4	..	1	..	..	..	..	..	..	..	..	..

TABLE IV

Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agricultural			Mixtures			Vegetable			Flower		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
White Rose Seed & Nursery Co. York, Penna.	..	..	..	..	2	..	19	..	1	..	..	..
Whitney Seed Co. Buffalo, New York	1	..	..	2	..	..	..	..	..	..	..	..
Wilcox Seed Co. Harrisburg, Oregon	..	..	1	..	..	..	..	..	..	..	..	..
Wilkens Seed Grains, Inc. Pontiac, Illinois	5	1	..	..	..	..	..	.	..	..	..	..
TOTALS	991 *	50	77	119	79	26	904	8	19	248	2	3

* This includes 15 Tree & Shrub Seed Samples.

TABLE V

Quality of Pennsylvania Grown Forage Seeds

During the past year the number of home grown forage seed samples received by the Seed Laboratory has decreased 60.2% from the previous year. This table gives some indication of the quality of seed that Pennsylvania farmers are growing and planting. Many of the lots of seed considered illegal in this table have been recleaned and made legal for sale. Although a lot of seed may be legal for sale, it could still be unfit for planting; for example, low in germination, high percentage of crop or weed seeds or restricted noxious weed seeds. Two lots of red clover were illegal because they contained 1% and 13% weed seeds. Two lots of timothy contained 4% weed seeds, one contained Canada thistle.

% of Home Grown Forage Seed Illegal For Sale

	1966	1965	1964
Alfalfa	28.6	28.6	33.3
Birdsfoot trefoil	39.1	46.7	16.6
Red Clover	61.9	41.9	51.2
Timothy	16.1	8.11	37.5

If farmers must plant home grown forage seed, they should learn the value of weed free quality seed. It is not necessary for farmers to plant home grown seed which contain high numbers of weed seeds. It is cheaper to plant weed free seed than to spend countless dollars later trying to control weeds. It pays to have home grown seed properly cleaned and laboratory tested.

	Number of Samples	Av. Purity Analysis	Purity High – Low	Noxious Weed Seeds Per Pound Average	Noxious Weed Seeds Per Pound High – Low
		Alfalfa			
Legal	5	99.24	99.88 – 98.15	29	126 – 0
Illegal	2	*	*	1661	2800 – 522
		Birdsfoot Trefoil			
Legal	14	97.61	99.69 – 90.45	156	442 – 0
Illegal	9	*	*	2483	7500 – 494
		Red Clover			
Legal	16	99.69	99.93 – 99.47	65	315 – 0
Illegal	26	*	*	3564	40,500 – 468
		Timothy			
Legal	26	99.67	99.99 – 98.38	42	403 – 0
Illegal	5	*	*	5339	9000 – 1677

* Samples not analyzed for purity

Labeling Violations of 1965 - 1966

Agricultural Seed and Mixtures

Illegible tags or labels.
Analysis not totaling 100%.
Name and address is required information with tag or label.
Origin is required information for all certified seed.
Predating of seed.
Listing of restricted noxious weed seeds by per pound.
Words "mixed" or "mixture" is required information with mixtures.
Improper format and wording for labeling of mixtures.
Ingredients not listed in order of predominance.
Term hybrid not used where required.
Flagging statements.
Illegal treatment tags (contrasting color).
False and misleading statements.
Abbreviations not permissible.
Use of improper or incorrect kind and variety names.

Examples:

Merion Kentucky Bluegrass – Not Merion Bluegrass.
White clover – not White Dutch Clover.
Alsike clover – not Alsike.
Timothy – not Fancy or Select Timothy.
Red Fescue – not Creeping Red Fescue (creeping is a type).
Sorghum–Sudangrass Hybrid – not Hyb. Sorgo–Sudan.

Flower and Vegetable Seeds

Use of incorrect variety names.

Examples:

(Variety name) tomato – not Cocktail Tomato.
Tetra Snapdragon – not Tetra Snaps.

Term hybrid not used where required.
When the germination percentage is used, the test date must be used.
All containers (jars, buckets or bins) from which bulk vegetable seed is sold must have a tag or sticker showing the name and variety, germination information and name and address.